REMARKS

In the Final Office Action of June 25, 2004 the Examiner objected to an informality in claim 1. Claim 1 has been amended to correct this informality.

Claims 1, 2, 5-7 are rejected under 35 U.S.C. § 103 as obvious over U.S. Patent No. 5,150,310 to Greenspun et al. (hereinafter "Greenspun") in view of U.S. Patent No. 6,459,704 to Jandrell (hereinafter "Jandrell"). Claims 11-16, 18-20 and 24 are rejected under 35 U.S.C. § 103 as obvious over U.S. Patent No. 6,121,926 to Belcher et al. (hereinafter "Belcher") in view of Jandrell. Applicants respectfully traverse the rejections of record.

Rejections under 35 U.S.C. § 103

The Examiner asserts the following as the basis for combining the Greenspun and Jandrell references:

> Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the steps of detecting the energy of a second channel and transmitting the location identification signals in said second channel if the energy is below the threshold taught by Jandrell into the method taught by Greenspun et al. for the purpose of allowing a greater number of assets to be tracked by using more than one channel (i.e., due to less interference (Jandrell; column 11 lines 31-35)).
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> Final Office Action, p. 5.

However, the Examiner provides no further basis for the combination of Greenspun and Jandrell. As the Court of Appeals for the Federal Circuit has held:

> "There must be some reason, suggestion, or motivation found in the prior art whereby a person of ordinary skill in the field of the invention would make the combination. That knowledge can not come from the applicant's invention itself."

In re Oetiker, 24, U.S.P.Q.2d 1443, 1447, 977 F.2d 1443, 1447 (Fed. Cir. 1992). In this instance, there is no "reason, suggestion, or motivation" in the prior art such that one of ordinary

skill in the art would make the combination which forms the basis of the rejections under 35 U.S.C. § 103(a) in the Final Office Action. Accordingly, because the Examiner has cited no express teaching or suggestion towards the cited combination in the prior art, in conformity with the law as recited by the Federal Circuit, these references are not properly combined. Applicants therefore respectfully submit that the rejections under 35 U.S.C. § 103(a) are improper for at least this reason, and submit that these claims are in condition for allowance.

In fact, the cited portion of Jandrell (col. 11, lines 31-35) actually *teaches away* from the claimed invention and from Greenspun. The cited portion of Jandrell states, "[u]sing a frequency-hopped spread spectrum technique allows the devices to both avoid signal degradation caused by interference that may already be present on the channel, and to avoid causing interference on a channel that is currently busy." (Jandrell, col. 11, lines 31-35). As would be understood by one of ordinary skill in the art, spread spectrum frequency hopping, used by Jandrell to "avoid signal degradation," is substantially different from the Examiner's interpretation of Jandrell, namely "detecting the energy of a second channel and transmitting the location identification signals in said second channel if the energy is below the threshold." Accordingly, Jandrell solves a different problem using a different technique, and there is no "reason, suggestion, or motivation" for the combination. In a frequency hopping system, the transmitted signal "hops" from frequency to frequency over a wide band. The specific order in which frequencies are occupied is a function of a code sequence, and the rate of hopping from one frequency to another is a function of the information rate. However, the present invention does not require frequency hopping spread spectrum techniques.

In contrast, the invention of claim 1 refers to a method for providing location identification signals, for determining location of a mobile asset in a communications network,

wherein radio frequency energy on a given channel is detected and compared with a threshold. Only when a channel with radio frequency below the threshold is located is the channel used for transmitting identification signals.

Moreover, even assuming *arguendo* that the references are properly combined, the combination of references still fails to disclose or suggest one or more limitations of the claims. As conceded by the Examiner, "Greenspun et al. do not specifically disclose that if the radio frequency energy on the channel 11 is not substantially less than said threshold, detecting the presence of radio frequency energy on a second channel and if radio frequency energy on said second channel is substantially less than a predetermined threshold, transmitting said position detection information (location identification signals) on said second channel." (Office Action, p. 4). The Examiner asserts, however, that Jandrell teaches this limitation. Applicants respectfully disagree.

The system of Jandrell is distinct from the claimed invention in several respects. As noted above, the cited portion of Jandrell (col. 11, lines 36-57; Fig. 8 step 504) relates to a frequency hopping spread-spectrum communications system.

The cited portion of Jandrell states, "[u]sing a frequency-hopped spread spectrum technique allows the devices to both avoid signal degradation caused by interference that may already be present on the channel, and to avoid causing interference on a channel that is currently busy." (Jandrell, col. 11, lines 31-35).

Claim 1 includes the limitation that "if said radio frequency energy on said first channel is not substantially less than said threshold detecting the presence of radio frequency energy on a second channel." The frequency hopping, spread spectrum scheme of Jandrell does not detect the radio frequency energy on a channel and select channels based on the amount of radio

frequency energy detected on the channel. In fact, Jandrell performs no such channel selection. Rather, the system of Jandrell operates according to frequency hopping techniques which are well know in the art, wherein the transmitted signal "hops" from frequency to frequency over a wide band, in an order *which is a function of a predetermined code sequence*. Indeed, as disclosed by Jandrell "a new hop channel is selected and the hop interval timer is reset." (Jandrell, col. 11, lines 47-48). Jandrell does not speak to detecting energy on the new hop channel, nor to selecting a new channel based on a comparison with a threshold - which is expected in light of the frequency hopping, spread spectrum system described therein. For at least this reason, the combination of references fail to disclose or suggest all the limitations of the claimed invention.

Furthermore, Jandrell fails to disclose or suggest comparing the energy on a given channel to a "predetermined threshold." All that the system of Jandrell does is sense a "busy" or "idle" state on a given channel. (Jandrell, col. 11, lines 45-49). The claimed invention is different in that multiple signals can be transmitted on the same channel - the invention is directed to limiting the amount of traffic on each channel - a stark difference from a scheme in which data is transmitted depending on whether the channel is simply "idle" or "busy." Further, even where Jandrell determines that a channel is "busy," Jandrell fails to disclose or suggest looking to *another* channel for sensing the energy and transmitting a signal thereon.

For at least these reasons, Applicants respectfully submit that claim 1 is in condition for allowance. Independent claims 11, 15 and 24 recite similar limitations to claim 1 in these respects, and are likewise patentable for similar reasons. The remaining dependent claims all depend from one of claims 1, 11, 15 or 24, and Applicants respectfully submit that these claims are therefore also in condition for allowance.

CONCLUSION

In view of the foregoing amendment and remarks, favorable reconsideration and allowance of claims 1, 2, 5-7, 11-16, 18-20 and 24 are respectfully solicited. In the event that the application is not deemed in condition for allowance, the examiner is invited to contact the undersigned in an effort to advance the prosecution of this application.

Respectfully submitted,

Robert L. Maier
PTO Reg. No. 54, 291
(212) 408-2538

Attorney for Applicants

BAKER BOTTS L.L.P.
30 Rockefeller Plaza
New York, NY 10112